

REGISTRATION FORM	INTERNATIONAL CONFERENCE ON
Name	ENERGY USE MANAGEMENT
Title	22-26 OCTOBER 1979 HYATT REGENCY HOTEL
Affiliation	ICEUM-II LOS ANGELES, CALIFORNIA
Address	TOPICAL AREAS INCLUDE:
City	 Strategies and Alternatives Models, Analysis and Assessment Ecology and Environment Lifestyles, Motivation and Values Industry, Technology and Commerce Community Systems and Urban Areas Buildings Agriculture, Food Systems and Rural Areas Transportation and Communications
State Zip	
Country	WHO SHOULD ATTEND:
Telephone	The Conference is intended for individuals involved in all energy-using sectors – Engineers, Architects, Scientists, Urban Planners, Plant and Building Owners and Managers, Administrators, Consumers, Sociologists, Ecologists, and anyone concerned with managing energy more efficiently
	ORGANIZED BY: The Interdisciplinary Group for Ecology, Development and Energy (EDEN), Los Angeles and Paris, France
Mail form to: ICEUM-II P.O. Box 64369 Los Angeles, California 90064	CO-SPONSORS: U.S. Department of Energy (DOE); Los Angeles Council of Engineers and Scientists; The University of Arizona; The Alliance to Save Energy; University of California, Los Angeles; Americans for Energy Independence
	Registration Information:
	Entire Week with complete Conference Proceedings*
Make checks payable in U.S. funds to:	*Proceedings and Abstract book to be distributed at the Conference at the time of Registration.
International Conference on Energy Use Management	Proceedings purchased separately will be available from the publisher, Pergamon Press, Inc., Elmsford, New York.
Payment is fully refundable up to September 30, 1979	• One Day (without Proceedings)
	For further information, please write or call:
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Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising closing for a particular Friday issue is Wednesday, $3^{1}/_{z}$ weeks **before**. Advertising is accepted only in writing; no abbreviations. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, or handicap.

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Send copy for all **Positions Wanted** ads and **Display** ads less than 1/6 page in size (125 millimeters) to:

SCIENCE, Room 207 1515 Massachusetts Ave., NW Washington, D.C. 20005 Telephone: 202-467-4456

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Scherago Associates, Inc. 1515 Broadway New York, N.Y. 10036 Telephone: 212-730-1050

Blind ad replies should be addressed as follows:

Box (give number) SCIENCE 1515 Massachusetts Ave., M Washington, D.C. 20005 NW

POSITIONS WANTED

Cellular Immunologist, Ph.D. Experience in human tumor immunologist, Ph.D. Experience in human immunology, cellular immunology, and teach-ing. Publications on tumor cell cloning, antigenicity, and membrane receptors. Desires challenging aca-demic or industrial position in moderate climate. Box 247, SCIENCE. X

Immunologist, M.S. 1977, desires position with re-searcher interested in regulation of the immune net-work. Opportunity to work for Ph.D. in this area al-so desired. J. Daniels, 101 Bruner Avenue, Glen-olden, Pennsylvania 19036. 9/7, 14

Laboratory or Field Position. I am assuming an A.S. degree with environmental emphasis by March 1980 and I desire work experience prior to continuing my education. Contact: M. Tarka, General Delivery, Eugene, Oregon 97440. X

Marine Biologist, Ph.D. 1965; 12 years of profession-al overseas and United Nations experience in fish-eries, aquaculture, and applied university marine en-vironmental research/development. U.S. citizen with excellent international working contacts. Wish-es challenging position in Britain-Ireland-Europe as director, manager, or representative of international director, manager, or representative of international or industrial group involved/interested in marine en-vironmental affairs, aquaculture, or fisheries. C. Kensler, 8 Gwynffrwd Road, Holywell, Clwyd, Creat Prittien Great Britain.

Microbiologist. Ph.D. Six years of industrial re-search experience in fermentation development, an-tibiotic screening, analytical microbiology, and tu-mor virology and immunology as group leader. Box 248, SCIENCE. X

Senior Microbiologist/Professor of Botany, Ph.D. Senior Microbiologist/Professor of Botany, Ph.D. 1967 in plant pathology/physiology. Varied experi-ence in teaching, research, and administration. Re-cent developments include mosquito repellent cream, enterotoxemia vaccine, and antihelminthic drug. Seeks research/teaching position in industrial/ academic setting. Dr. S. Agarwal, c/o J. Jain, 17937 Valladares Drive, San Diego, California 92127. X

7 SEPTEMBER 1979

POSITIONS WANTED

Russian-English full-time scientific, technical, commercial **translator** since 1962. Now accepting free-lance assignments. C. Parsons, 5914 Pulaski Ave-nue, Philadelphia, Pennsylvania 19144; telephone: 215-848-7084. X

POSITIONS OPEN

ANATOMIST. The School of Medicine, Southern Illinois University, Department of Anatomy, is seek-ing a qualified anatomist to teach gross anatomy. Necessary qualifications include M.D. or Ph.D. ex-perience in teaching gross anatomy and a major in-volvement in research. Rank and salary in this tenvolvement in research. Rank and salary in this ten-ure-track position are open and depend on experi-ence and qualifications. Interested and qualified persons are invited to send letters of application to: **Office of the Associate Dean, Anatomy Search Com-mittee, School of Medicine, Southern Illinois Universi-ty, Carbondale, Illinois 62901.** Applications must be postmarked by 15 February 1980. An Equal Oppor-tunity/Affirmative Action Employer.

ASSISTANT PROFESSOR (tenure-track) with a major background in radiation physics is being sought to serve within the expanding inter-disciplinary areas of radiation biophysics, radiation disciplinary areas of radiation biophysics, radiation therapy, and associated programs in the biological sciences. Expertise for teaching dosimetry, shield-ing, and medical physics at the graduate level is re-quired. Research expertise and interest must be in radiation physics. A Ph.D. is required. Starting date is preferably 14 January 1980 (spring academic term) but may be 15 August 1980 (fall academic term). More details will be sent upon request. Send appli-cations, including complete résumé, list of pub-lications, statement of research interests, and three supporting letters by 15 October 1979 to: Dr. Ben Friesen, Radiation Biophysics, University of Kansas, 140 Nuclear Reactor Center, West 15 Street, Law-rence, Kan. 66045. An Equal Opportunity Employer.

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Position available immediately for ASSISTANT PROFESSOR TO PROFESSOR AND CHIEF OF **PROFESSOR TO PROFESSOR AND CHIEF OF SERVICE**, Radiation Therapy, Department of Radi-ology. Duties: administer Division of Radiation Therapy. The physician will take part in the program of patient care, teaching, and research carried on in the Department of Radiology, Division of Radiation Therapy, and supervise the activities of the resident staff and aid in the teaching of residents and medical staff and aid in the teaching of residents and medical students. Must be Board-certified. Entering level commensurate with qualifications and experience. Reply to: Box 249, SCIENCE. Code 200B0. A non-discriminatory, Affirmative Action Employer.

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL CELL BIOLOGIST

Position available at the ASSISTANT OR ASSOCI-ATE PROFESSOR level in the Department of Anat-omy, University of Michigan Medical School. Appli-cants should have a strong research program in cell biology. The department has excellent facilities for electron microscopy and other aspects of cell biol-ogy. The teaching responsibilities will be either in histology or gross anatomy, depending on the back-ground of the individual. In addition, one or two lec-tures will be given in a departmental cell biology course. We anticipate filling the position by July to September 1980. Interested individuals should send curriculum vitae, a paragraph describing their cur-rent research interests, and three letters of reference to: Box 250, SCIENCE. Code 200B0. A non-discriminatory, Affirmative Action Employer. Position available at the ASSISTANT OR ASSOCI-

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Position available immediately for INSTRUCTOR THROUGH PROFESSOR, Department of Radiolo-**THROUGH PROFESSOR**, Department of Radiolo-gy. The physician will take part in the program of patient care, teaching, and research carried on in the Department of Radiology, Division of Radiation Therapy. He/she will supervise the activities of the resident staff and aid in the teaching of residents and medical students. Must be Board-eligible or Board-certified. Entering level commensurate with qualifi-cations and experience. Reply to: **Box 251**, **SCI-ENCE**. Code 1900F0. *A nondiscriminatory, Affirma-tive Action Employer*.

POSITIONS OPEN

ASSISTANT PROFESSOR DEPARTMENT OF BIOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The Department of Biology announces an opening of a tenure-track position at the assistant professor level. The candidate should have carried out signifilevel. The candidate should have carried out signifi-cant predoctoral and postdoctoral research on the genetics and molecular biology of prokaryotes or simple eukaryotes and should plan to continue inde-pendent research in this general area. Teaching, ap-proximately one semester course per year, will be undergraduate and graduate genetics, microbiology, or molecular biology subjects.

Applicants should provide curriculum vitae, a short statement of the proposed research program, and the names of three scientists willing to write letters of recommendation.

Send applications to:

Dr. Boris Magasanik Massachusetts Institute of Technology Department of Biology, Room 56-423 Cambridge, Mass. 02139

Massachusetts Institute of Technology is an Affirmative Action/Equal Opportunity Employer

CORNELL UNIVERSITY, Department of Chemis-try, seeks an ASSISTANT PROFESSOR OF BIO-PHYSICAL CHEMISTRY. Candidates should be able to develop strong programs in both research and teaching (biophysical and physical chemistry). Postdoctoral experience highly desirable. Interested candidates should supply curriculum vitae, a brief summary of pre- and postdoctoral research, and ré-sumé of plans for future research program. Three letters of recommendation and a graduate transcript are also required. All material should be sent to: **Professor B. Wi**-

All material should be sent to: Professor B. Wi-dom, Baker Laboratory of Chemistry, Cornell University, Ithaca, N.Y. 14853 by 1 November 1979. Cornell University is an Affirmative Action/Equal Opportunity Employer.

DEPARTMENT OF CHEMISTRY UNIVERSITY OF CALIFORNIA, BERKELEY

Applications are invited for several anticipated positions at the level of ASSISTANT PROFESSOR OF CHEMISTRY, beginning fall 1980. We are inter-ested in outstanding candidates, with exceptional promise in teaching, and research in analytical, bio-physical, inorganic, nuclear, organic, physical, or theoretical chemistry. Candidates should submit curriculum vitae (in-cluding a list of publications and a summary of their teaching and research objectives), and request three

teaching and research objectives), and request three letters of reference, all to be sent to: Chairman, De-partment of Chemistry, University of California, Berkeley, Calif, 94720. Deadline for receipt of appli-cations is 1 January 1980. The University of Califor-nia is an Affirmative Action Employer.

ASSISTANT PROFESSOR OF MICROBIOLOGY

ASSISTANT PROFESSOR OF MICROBIOLOGY The Department of Microbiology and Immunolo-gy, Washington University School of Medicine, in-vites applications from highly qualified individuals for an appointment as assistant professor. Appli-cants should have Ph.D. or M.D. degrees, 2 to 5 years of postdoctoral research experience, and a commitment to medical and graduate student teach-ing. Teaching competence should be in pathogenic microbiology; research interests should be in micro-biology. Send curriculum vitae, brief description of research plans, and names of three referees to: Dr. Joseph M. Davie, Department of Microbiology and Immunology, Washington University School of Medi-cine, St. Louis, Mo. 63110 by 1 November 1979. Equal Opportunity/Affirmative Action Employer, M/F/H. M/F/H.

ASSISTANT VICE PRESIDENT FOR RESEARCH PROGRAMS, DIRECTOR OF INSTITUTE OF EN-VIRONMENTAL AFFAIRS. Candidate must have strong scientific background and experience in prostrong scientific background and experience in pro-gram administration to administer and promote re-search, assist faculty in obtaining support for proj-ects and students, coordinate research programs with administrative policies and procedures, meld research and public service, promote seminars and conferences, and provide leadership and liaison on local, state-wide, national, and international levels. Salary commensurate with qualificational revers. Salary commensurate with qualifications. Send ré-sumé and three references by 15 October to: Dr. Theodore J. Stenuf, State University of New York College of Environmental Science and Forestry, 310 Walters Hall, Syracuse, New York 13210. An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR EXPERIMENTAL PSYCHOLOGY UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL

The Department of Psychology at the University of North Carolina, Chapel Hill, has an opening for an assistant professor in the area of experimental psychology. Applications will be considered from per-sons whose training and experience enable them to teach and do research in one of the following areas: learning, cognitive processes, perception and sen-sory processes, or biological psychology. Preference will be given to applicants who have some post-doctoral training or teaching experience. This is a tenture-track position which involves undergraduate teaching, graduate teaching and supervision, and re-search. To apply, send curriculum vitae and three letters of recommendation to: **Richard A. King**, **Search Committee Chairman (Experimental Psychol**ogy), Psychology Department, Davie Hall 013A, University of North Carolina, Chapel Hill, N.C. 27514. The deadline for receipt of applications is 1 November 1979.

The University of North Carolina is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR MEMBRANE PHYSIOLOGY

The Department of Physiology and Biophysics at The University of Iowa College of Medicine invites applications for a tenure-track appointment at the assistant professor level. Applicants must have the Ph.D. degree and/or M.D. degree and two or more years of postdoctoral training, with a record of pro-ductivity in original research. Candidates should be prepared to conduct a strong independent research program related to cellular aspects of transport across biological membranes, and to take an active role in the medical and graduate teaching activities role in the medical and graduate teaching activities of the department. Please send curriculum vitae and a brief description of research interests, teaching exa oner description of research interests, teaching ex-perience, and career objectives, with names of at least three references, to: Dr. Robert E. Fellows, De-partment of Physiology and Biophysics, The Universi-ty of Iowa College of Medicine, Iowa City, Iowa 52242.

The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

The Department of Chemistry at Purdue Universi-ty solicits applications for an ASSISTANT PROFES-SOR level tenure-track position in any area of organ-ic chemistry, effective August 1980. Minimum re-quirements include a Ph.D. in chemistry and exceptional promise in research and teaching at the undergraduate and creduate lavale. Curriculum undergraduate and graduate levels. Curriculum vitae, including undergraduate and graduate transcripts, a summary of planned research, and three letters of recommendation should be sent by 1 De-cember 1979 to: **Professor D. W. Margerum, Head**, Department of Chemistry, Purdue University, West Lafayette, Ind. 47907. Purdue is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF PLANT BIOLOGY

ASSISTANT PROFESSOR OF PLANT BIOLOGY A well-equipped modern Department of Biological Sciences located outside Baltimore is seeking a plant biologist with postdoctoral experience, who has demonstrated an ability to initiate a vigorous re-search program and has a commitment to quality graduate and undergraduate teaching. Candidates should have a strong background in physiology and/ or biochemistry of plant systems, specializing in areas such as morphogenesis, tissue culture, plant hormones, water relations, algology, or virology. Submit curriculum vitae, bibliography, names of suggested referees, and a description of research in-terests to: Dr. Thomas F. Roth, Chariman, Faculty Search Committee, Department of Biological Sci-ences, University of Maryland Baltimore County, Ca-tonsville, Maryland 21228. An Equal Opportunity/Af-firmative Action Employer. firmative Action Employer.

ASSISTANT PROFESSOR OR SENIOR RESEARCH ASSOCIATE

Immunologist/Cell Biologist/Biochemist. To study mechanisms underlying ability of 5-bromodeoxyuri-dine-grown melanoma cells to become non-malignant and to immunize host against parental tu-mor. Postdoctoral experience required. Salary nego-tiable. Send curriculum vitae, publications, and three letters of recommendation. Postdoctoral re-search position also open for recent Ph.D. Dr. S. Si-lagi, Cornell University Medical College, 515 East 71 Street, New York, N.Y. 10021. Equal Opportunity/ Affirmative Action Employer.

POSITIONS OPEN

ASSOCIATE PROFESSOR-PHYSIOLOGY

Desire physiologist with gastrointestinal and/or besite physiologist with gastromestinal and/on cardiovascular background to be director of estab-lished and funded Radiology Research Laboratory. Previous experience with blood flow techniques and gastromtestinal physiology desirable. Each appli-cant should have a doctoral degree and be an estabcant should have a doctoral degree and be an estab-lished investigator with a demonstrated ability to de-velop an independently funded research program. Teaching responsibilities will include organization of seminars, supervision of graduate students, and es-tablishment of postdoctoral training programs in physiology and radiology. Candidates should send curriculum vitae, a list of publications, and the names and addresses of three references (who will not be contacted without permission) by 1 October 1979 to: Dr. Robert I. White, Jr., Director, Cardio-vascular Radiology, Russel H. Morgan Department of Radiology and Radiological Science, The Johns Hop-kins University School of Medicine, Baltimore, Mary-land 21205. The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST. The Department of Chemistry at the University of Oklahoma invites applications for a permanent faculty position in biochemistry. Minimum qualifications include a Ph.D. in biochemistry or chemistry and excellent credentials in, as well as a strong commitment to, both teaching and research in biochemistry. The successful applicant will be expected to teach at both the undergraduate and graduate level and to maintain an active research program. The appointment will be made at the rank of professor, associate professor, or assistant professor, de-pending on background and experience. Applicants should submit a complete résumé, including re-search and teaching experience, future research plans, and any other supporting material, and have at least three letters of reference sent to: **Professor Eddie Courd Smith**. ate level and to maintain an active research program. at least three letters of reference sent to: Professor Eddie Carol Smith, Chairperson of the Search Com-mittee, Department of Chemistry, University of Okla-homa, 620 Parrington Oval, Norman, Oklahoma 73019. Applications must be postmarked by 1 No-vember 1979. The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer.

BIOLOGIST/BOTANIST-HAWAII

ASSISTANT PROFESSOR. Mandatory qualifica-tions: ability to teach a course in organismal biology to biology undergraduate majors, ability to contrib-ute to research in botany of tropical crops. For peri-od of 1 January to 30 June 1980 only. Write for de-tails: Dr. Douglas Friend, Acting Chairman, Depart-ment of Botany, University of Hawaii, 3190 Maile Way, Honolulu, Hawaii 96822.

An Equal Opportunity/Affirmative Action Employer. Closing date: 30 September 1979.

BIOLOGY-DEVELOPMENTAL. Full-time tenure-West Seventh Street, Owensboro, Ky. 42301. Equal Opportunity Employer.

CLINICAL MICROBIOLOGY. ASSISTANT PRO-FESSOR. Must have demonstrated excellence in re-search and teaching. Will share responsibility for teaching pathogenic microbiology and pathogenesis to medical and graduate students and will conduct a to medical and graduate students and will conduct a strong research program in one of these fields. Expe-rience and willingness to participate in regional ref-erence diagnostic services highly desirable. Send curriculum vitae, list of publications, and three let-ters of recommendation to: **Dr. Donald J. Merchant**, Department of Microbiology and Immunology, East-ern Virginia Medical School, P.O. Box 1980, Norfolk, Virginia 23501. An Equal Opportunity/Affirmative Action Employer.

The Deep Sea Drilling Project, Scripps Institution of Oceanography, University of California, San Diego, is currently seeking to fill a position for a qualified **EARTH SCIENTIST** as a manager of an ongoing sci-entific program prior to January 1980. Appointment as chief scientist will be in the academic administra-tion ceries: solary commansurate with experience. tion series; salary commensurate with experience. Ph.D. in earth sciences required. Demonstrated ability in research and research planning required. Ex-perience in research management desirable. Please send complete résumé and names of at least five ref-erces to: Dr. M. N. A. Peterson, Deep Sea Drilling Project, Mail Code A-031, University of California, San Diego, La Jolla, California 92093. The University of California, San Diego, is an Equal Opportunity/ Affirmative Action Employer.

POSITIONS OPEN

TWO BIOLOGY FACULTY POSITIONS. Full-time. to begin January 1980. (i) Vertebrate Physiologist – General physiology, general biology, and elective in area of specialization, and (ii) **Botanist**—Plant physiology, general biology, and elective in area of specialization. Requirements: Ph.D., excellence as a teacher, commitment to undergraduate education, and research program with opportunity for student participation. Salary and rank dependent on qualifications and experience. For detailed job description and application procedure, write to: Dr. Karen A. Loehr, Search Committee, Biology Department, Sim-mons College, 300 The Fenway, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.

BIOLOGICAL OCEANOGRAPHER/ MARINE ECOLOGIST

A tenure-track faculty position in the graduate school of oceanography of the University of Rhode Island. Starting date flexible. Seeking candidates with a strong conceptual orientation to interact with diverse areas of biological, chemical, geological, and phys-ical oceanography covered by the university faculty and staff. Ph.D. in oceanography, marine biology, or any related field and a high competency in research se indicated by record of publications and research any related here and a nigh competency in research grants. Submit complete résumé and names of three references by 1 November 1979 to: Professor Paul Hargraves, Chairman of the Screening Com-mittee, Graduate School of Oceanography,

UNIVERSITY OF RHODE ISLAND Narragansett, Rhode Island 02882

An Affirmative Action/Equal Opportunity Employer

THE UNIVERSITY OF MICHIGAN COLLEGE OF PHARMACY

BIOPHARMACEUTICS/PHARMACOKINETICS Assistant professor position available 1 July 1980. Candidates should possess an earned Ph.D. degree Candidates should possess an earned Ph.D. degree or equivalent and demonstrated expertise in pharma-cokinetics. Knowlege of dosage form design and analytic methodology highly desirable. Successful candidate expected to pursue vigorous independent research and collaborative programs with clinical faculty. Responsibilities include teaching and direc-tion of Ph.D. and Pharm.D. candidates. Send cur-riculum wittee including names and addresses of riculum vitae, including names and addresses of three references, to: Dr. John G. Wagner, Chair-man, Pharmacokinetics Search Committee, College of Pharmacy, The University of Michigan, Ann Arbor, Michigan 48109.

A nondiscriminatory, Affirmative Action Employer

CELL BIOLOGIST

The Department of Biology at the University of Cali-fornia, Riverside, has a faculty position at the level of assistant professor available 1 September 1980. Candidates must have postdoctoral experience and show evidence of ability to develop and sustain a productive, independent, high-quality research pro-gram. The department is especially interested in can-didates with research experience in biochemical, ge-netic, and/or electron microscopical approaches to the study of cell ultrastructure, development, cell netic, and/or electron microscopical approaches to the study of cell ultrastructure, development, cell surfaces, and/or cell interactions. Teaching respon-sibilities will be in the area of microbiology and cell biology at both the undergraduate and graduate lev-els. Applicants should provide curriculum vitae, re-prints, a brief description of research and teaching interests, and should arrange for at least three letters of reference to be submitted in their behalf. The Uni-versity of Cellformic in the Carlot Constructivit/Affin versity of California is an Equal Opportunity/Affir-mative Action Employer. Applications are invited from all qualified individuals, especially women and minority groups. Address correspondence con-cerning this position to:

Professor R. Ruibal, Chairman Department of Biology University of California Riverside, California 92521

DEAN, COLLEGE OF VETERINARY MEDICINE. DEAN, COLLEGE OF VETERINARY MEDICINE. Candidate must be a graduate veterinarian with a demonstrated record of superior achievement in scholarship, administration, and leadership. Experi-ence in teaching and administration in veterinary schools is preferred. Practice, industrial, govern-mental, and other veterinary medical experience will be considered. Academic preparation or experience is required at the level appropriate for senior faculty. Starts 1 July 1980. Salary: negotiable. Applications should be received by 1 November 1979; mail to: Dr. Thomas Powers, The Ohio State University, 1900 Cof-fey Road, Columbus, Ohio 43210. An Equal Opportu-nity/Affirmative Action Employer.

UNIVERSITY OF WISCONSIN-MADISON DEAN, SCHOOL OF PHARMACY

Applications and nominations are invited for the position of dean, School of Pharmacy, at the Univer-sity of Wisconsin-Madison. The position will be available 1 July 1980.

Candidates must have earned the Ph.D. in a phar-maceutical discipline and must possess a record of scholarly achievement or evidence of creative con-tributions sufficient to qualify them for tenured rank in the university faculty. Desirable qualifications include an undergraduate degree in pharmacy, experi-ence with teaching and curriculum development at the undergraduate and graduate levels, demon-strated research achievements, administrative experience, and the ability to relate to pharmacy practi-

Nominations, including all available supporting material, should be submitted by 1 October 1979, and completed applications by 31 October 1979 to:

Dr. Robert W. Hammel Chairman, Search and Screen Committee 134 Bascom Hall University of Wisconsin--Madison 500 Lincoln Drive Madison, Wisconsin 53706

The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and en-courages applications from women and members of minority groups.

DEVELOPMENTAL BIOLOGIST. Ph.D., post-doctoral experience desired. We anticipate a tenuretrack opening at Swarthmore College beginning in September 1980. Candidates sought whose experiseptember 1960. Calibrates solution whose experi-ence in developmental biology is broad but whose special interest is concerned with multicellular ani-mal development. Responsibilities include teaching in developmental biology and a specialty area (pref-erably endocrinology), research, and participation in the intervention of the presence of the preference of the pre-sence of the presence of the presence of the presence of the pre-sence of the presence of the presence of the presence of the pre-sence of the presence of the presence of the presence of the pre-sence of the presence of the prese erably endocrinology), research, and participation in an introductory biology course. Anticipate making appointment at assistant professor level, though higher ranks will be considered for experienced can-didates. Send curriculum vitae, statement of inter-ests, three letters of recommendation, and tran-scripts by 19 October 1979 to: Dr. John B. Jenkins, Acting Chairman, Department of Biology, Swarth-more College, Swarthmore, Pa. 19081. An Equal Op-portunity Employer.

ELECTRON MICROSCOPIST DEPARTMENT OF BIOCHEMISTRY STANFORD UNIVERSITY

There will be an opening in the Biochemistry De-partment in April 1980 for a research associate with extensive background in electron microscopy (EM) applied to cell biology. The successful candidate will primarily collaborate with a group actively studying membrane biogenesis, intracellular transport of pro-teins, and secretion, and will utilize immunoteins, and secretion, and will utilize immuno-cytochemical and autoradiographic methods. He/she will also be responsible for managing the general use of the electron microscope and be available for con-sultation and collaboration with other research groups. Expertise in conventional transmission EM techniques is essential, but an additional special-ization (such as immunocytochemistry, or EM auto-radiography) would be highly desirable. Suitable candidates could hold Ph.D., M.S., or B.A. degrees. The extent of independence in this position, and the salary will be commensurate with the individual's academic qualifications and experience. Send cur-riculum vitae and bibliography to: Dr. James E. **Rothman, Department of Biochemistry, Stanford Uni-versity Medical Center, Stanford, California 94305**. *Stanford University is an Equal Opportunity/Affir-mative Action Employer*.

mative Action Employer.

ELECTRON MICROSCOPE TECHNOLOGIST II ELECTRON MICROSCOPE TECHNOLOGIST II (full-time). Must be proficient in preparation of bio-logical tissues for TEM, ultramicrotomy with dia-mond knives, EM photo procedures, working knowledge of TEM, thin-film preparation, and have ability to instruct persons in routine procedures of EM. Experience with SEM preparations for biologi-cal samples also preferred. Minimum requirements include 2 years of university training in biological or physical sciences and 1 year of TEM work experi-ence in EM laboratory. More experience desirable. Send curriculum vitae and references to: Dr. Judith A. Murphy. Director. Center for Electron Micros-A. Murphy, Director, Center for Electron Micros-copy, Southern Illinois University, Carbondale, Ill. 62901. Salary range is \$925 to \$1315 per month. Southern Illinois University is an Equal Opportunity Employer. Applications should be submitted by 28 September 1979. Position permanent.

POSITIONS OPEN

DIRECTOR AMERICAN TYPE CULTURE COLLECTION (ATCC)

The ATCC is searching for candidates for the posi-tion of director, beginning at the retirement of Dr. Richard Donovick, 1 July 1980. Applicants must Richard Donovick, 1 July 1980. Applicants must have a doctorate in some area of microbiology. Evi-dence (documented) of an actively supported and well recognized research accomplishment. Adminis-trative and executive experience in an organization involved in scientific research. Demonstrable skills in management of fiscal affairs and personnel at all educational and labor levels. Demonstrable skill in obtaining funding from private and public sources obtaining funding from private and public sources Acquaintance with funding agencies. Applications to Acquaintance with funding agencies. Applications to include résumé listing education, publications, past and present research support, and names of three in-dividuals familiar with work. Send applications to: Dr. Harve J. Carlson, Chairman, Search Committee, American Type Culture Collection, 12301 Parklawn Drive, Rockville, Md. 20852. Application deadline is 15 November 1979. 15 November 1979.

An Equal Opportunity Employer, M/F

WANTED-EXPEDITION LEADERS in the natural sciences. Expedition Training Institute (ETI) seeks academics (preferably M.A. or higher) to devise re-search/educational expeditions for January and summer 1980. You propose the field research and write your own budget (including your honorarium); we sponsor and oversee the expedition and enlist stu-dents. Write for information and guidelines: ETI, Box KS, Beverly Farms, Mass. 01915. Act soon: pro-posal deadline is 1 October.

EXPERIMENTAL PSYCHOLOGIST, CALIFOR-NIA—Research project in causes of retardation at major state facility. Good salary, benefits, team sup-port. Potential for university appointment. Ph.D. and 1800 hours research experience required. Con-tact: Frank Crinella, Ph.D., Fairview Developmental Center, 2501 Harbor Boulevard, Costa Mesa, Calif. 92626; telephone: 916-957-5101.

POSITIONS OPEN

DIRECTOR OF TISSUE TYPING LABORATORY. Responsible for histocompatibility testing for kidney transplantation, platelet and leukocyte transfusions, disease associations, and paternity evaluation. Midwest location. Opportunities for research, teaching, and academic appointment. Candidates should have a doctoral degree, a solid foundation in immunology/ immunohematology, and management capability. Experience in histocompatibility testing highly desirable but candidates with otherwise outstanding credentials will be considered for training program. Send inquiries to: **Box 246, SCIENCE.**

Simon Fraser University Burnaby, British Columbia, Canada DEPARTMENT OF BIOLOGICAL SCIENCES DIRECTOR OF MASTER OF PEST MANAGEMENT PROGRAM

Applications are invited for the vacant position of director of the Master of Pest Management (M.P.M.) program and related activities at Simon Fraser University.

The appointment will be at the rank of associate professor or professor, with level and salary com-mensurate with training and experience. The suc-cessful candidate should have an established professional and academic reputation in pest management and a current research program in at least one aspect of pestology. Responsibilities will include the devel-opment and organization of the M.P.M. program as well as research and teaching in the individual's area of expertise. The position is available immediately, subject to budgetary approval. The current salary range for the associate professor and professor rank is, respectively. \$25,636 to \$41,018 and \$31,552 to \$55,216 per annum.

\$55,216 per annum. Applications, including up-to-date curriculum vitae, copies of representative recent publications, and the names of at least three referees, should be sent to: Dr. M. Mackauer, Chairman, Department of Biological Sciences, Simon Fraser University, Burn-aby, British Columbia, Canada V5A 156, from whom further information may be obtained. Applications will be received until 31 October 1979 or until the position is filled nosition is filled.

OFFICE OF NAVAL RESEARCH

is seeking an

ASSISTANT TECHNICAL DIRECTOR FOR OCEAN SCIENCE

This is a Senior Executive Service (SES), General position, ES-1 through ES-4, with a salary range of \$44,756 to \$47,500, depending upon qualifications. Salary increases to potential \$50,000 maximum on October 1, 1979. The position is located in Arlington, Virginia.

The Assistant Technical Director provides staff assistance to the Technical Director of the Office of Naval Research in all matters related to Ocean Science Programs under the purview of the Office of Naval Research. He/She assists the Technical Director in the formulation of ONR's policies concerning basic and applied research. Reviews, appraises, plans, documents, and coordinates the naval research program in the ocean sciences within Navy, with other agencies and with international oceanographic groups in behalf of the Technical Director and the Chief of Naval Research. The incumbent will be responsible for implementing policy and plans, critiquing existing programs, and for developing mutually supportive joint efforts associated with research in the ocean sciences.

The position requires outstanding capabilities in creative research, leadership and management combined with established stature and reputation in the scientific community

Interested candidates must send SF-171 or resume no later than September 22, 1979 to:

Ms. Michele Talbot Office of Naval Research **Personnel Services Division** Code 722 800 N. Quincy St. Arlington, VA 22217 ATTN: Announcement No. 79-37

U.S. Citizenship Required An Equal Opportunity Employer

DIRECTOR

Center for Electron Microscopy University of Illinois

at Urbana-Champaign

Permanent position available fall 1980. Can-didates must have a Ph.D. in the life sci-ences, physical sciences, or engineering with a strong background in electron microscopy. The director must have the ability to orga-nize and teach courses in transmission and scanning electron microscopy, as well as the cambility of maintaining and operating a capability of maintaining and operating a service research program. It is possible for the director to hold faculty status in an appropriate department. Salary is commensu-rate with education and experience.

To receive full consideration, applicants must send an application letter and résumé by 1 December 1979 to:

Search Committee Center for Electron Microscopy Room 393 Morrill Hall School of Life Sciences University of Illinois at Urbana-Champaign Urbana, Illinois 61801 Telephone: 217-333-3044 J. R. Larsen, Chairman The University of Illinois is an Affirmative Action/Equal Opportunity Employer.

ENTOMOLOGIST

The Museum of Zoology of the University of Mich igan is continuing its search and invites new appli-cations for a joint appointment with the Division of Biological Sciences as an assistant curator of insects Biological Sciences as an assistant curator of insects and assistant professor of biology, beginning as early as 1 July 1980. Applicants must have a Ph.D. and demonstrated commitment to systematic and evolu-tionary studies of insects and to teaching. Four let-ters of recommendation, curriculum vitae, and cop-ies of publications should be sent to: Dr. Thomas E. Moore, Museum of Zoology, The University of Mich-igan, Ann Arbor, Mich. 48109, no later than 15 Octo-ber 1979.

The University of Michigan is a nondiscriminatory Affirmative Action Employer.

EXTENSION SPECIALIST: AGRICULTURAL **CHEMISTRY**. Assistant professor or higher. Provide leadership to agriculture and to the forest industry on the use of chemicals. Assist in the evaluation try on the use of chemicals. Assist in the evaluation of hazard in use of chemicals. Assist in educational programs on the safe use of chemicals. Ph.D. in chemistry, biochemistry, or equivalent with experi-ence or training in toxicology, hazard assessment, and environmental chemistry required. Knowledge of federal regulations pertaining to pesticides or in-dustrial chemicals desirable. Willingness and ability to interact with people important. Salary commensu-rate with qualifications. Send résumé to: Irma Sar-gent, Extension Personnel Officer, Extension Hall 125, Oregon State University, Corvallis, Oregon 97331; telephone: 503-754-2661. Oregon State University is an Equal Opportunity/Affirmative Action Employer in compliance with Section 504 of the Rehabilitation Act of 1973. Act of 1973.

The Department of Chemistry at Purdue University solicits applications for a FACULTY POSITION in any area of analytical chemistry, effective August 1980. Applicants will be considered at any professorial rank. Minimum requirements include a Ph.D. sorial rank. Minimum requirements include a Ph.D. in chemistry and exceptional promise in research and teaching at the undergraduate and graduate lev-els. Applicants for more senior ranks must have demonstrated distinguished research and teaching abilities. Curriculum vitae, including undergraduate and graduate transcripts for applicants at the assist-ant professor level, a summary of planned research, and three letters of recommendation should be sent by 1 December 1979 to: Professor D. W. Margerum, Head, Department of Chemistry, Purdue University, West Lafayette, Indiana 47904. Purdue is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

FACULTY POSITIONS MICROBIOLOGY

The Department of Microbiology, Cell Biology, Biochemistry, and Biophysics of The Pennsylvania State University invites applications for several ten-ure-track positions available at the assistant/associ-ate professor level. Candidates should have a strong background in microbiology; have postdoctoral ex-perience, and be capable of developing an independent research program in microbial physiology, mo-lecular genetics, or immunology. We provide ex-cellent physical facilities, competitive salary and cellent physical facilities, competitive salary and benefits, and a stimulating research environment. Applications should consist of curriculum vitae, copies of recent publications, a brief but detailed de-scription of research goals, and the names of three or four references. Send applications by 28 September 1979 to: Dr. R. W. Bernlohr, Department of Micro-biology, Cell Biology, Biochemistry, and Biophysics, The Pennsylvania State University, 108 Althouse Lab-oratory, University Park, Pennsylvania 16802.

An Affirmative Action/Equal Opportunity Employer

The Department of Chemistry at Purdue University solicits applications for a FACULTY POSITION in any area of inorganic chemistry, effective August 1980. Applicants will be considered at any profes-1980. Applicants will be considered at any profes-sorial rank but preference may be given applicants at the assistant professor level. Minimum requirements include a Ph.D. in chemistry and exceptional prom-ise in research and teaching at the undergraduate and graduate levels. Applicants for more senior ranks must have demonstrated distinguished re-search and teaching abilities. Curriculum vitae, in-cluding undergraduate and graduate transcripts for applicants at the assistant professor level, a sum-mary of planned research, and three letters of rec-ommendation should be sent by 1 December 1979 to: mary of planned research, and three letters of rec-ommendation should be sent by 1 December 1979 to: Professor D. W. Margerum, Head, Department of Chemisty, Purdue University, West Lafayette, Ind. 47907. Purdue is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF CHICAGO FACULTY POSITIONS IN CELL OR TISSUE BIOLOGY

The Department of Biology invites applicants for two faculty appointments from individuals with re-search interests in cell or tissue biology. Applicants should have demonstrated aptitude to develop inde-pendent research programs, and willingness to par-ticipate with others in a course in cell and tissue biology for freshman medical students. Send curriculum vitae, bibliography, and reference names and ad-dresses to: Dr. Hewson Swift, Department of Biology, University of Chicago, 1103 East 57 Street, Chicago, Illinois 60637.

The University of Chicago is an Equal Opportu-nity/Affirmative Action Employer.

FACULTY POSITION. Assistant/associate profes-sor of pharmacology, M.D. and/or Ph.D. Research and teaching in either basic or clinical pharmacolo-gy. Appointment 1 January 1980 or later. Apply by 1 November 1979, enclosing curriculum vitae, bibliog-raphy, and names of three referees, to: Dr. M. C. Sutter, Department of Pharmacology, Faculty of Medicine, University of British Columbia, Van-couver, British Columbia, Canada V6T 1W5. Equal Opportunity Employer, M/F.

FACULTY POSITIONS

The E. A. Doisy Department of Biochemistry at St The E. A. Doisy Department of Biochemistry at St. Louis University School of Medicine invites appli-cations for two full-time, tenure-track positions from Ph.D.'s/M.D.'s with demonstrated excellence in re-search. The candidate for one opening should have a strong background in enzymology with application in a currently interesting field of biochemistry. Ap-plicants for a second position should be qualified in the field of eukaryotic molecular biology. Excellent departmental support is available to encourage rapid initiation of independent research programs. Appliinitiation of independent research programs. Appli-cants will be expected to teach medical and graduate students. Salary and rank depend upon qualifica-tions. Curriculum vitae, short description of pro-posed research, and names of three references should be sent to:

> Dr. Carmine J. Coscia Chairman, Search Committee E. A. Doisy Department of Biochemistry St. Louis University School of Medicine 1402 South Grand Boulevard St. Louis, Missouri 63104

Eaual Opportunity/Affirmative Action Employer

POSITIONS OPEN

DEPARTMENT OF ENVIRONMENTAL HEALTH University of Washington FACULTY POSITION AVAILABLE

FACULTY POSITION AVAILABLE Faculty position available for person possessing a doctorate in psychology, physiology, safety, behav-ioral science, or related field, or person holding a master's degree in safety with several years of ap-propriate experience and evidence of leadership in the occupational safety field. Responsibilities in-clude development and teaching of safety courses such as fire protection engineering, psychological as-pects of accident prevention, health and safety prob-lems in industry, and construction safety, as well as ongoing involvement with continuing education of-ferings and the Educational Resource Center. Will be expected to participate in the development, con-struction, and use of a safety laboratory; work with students on special projects and thesis; and engage in research relating to occupational safety. Women and minorities are encouraged to apply. The Univer-sity of Washington is an Affirmative Action/Equal Opportunity Employer. Please send curriculum vitae and names of three references to: John T. Wilson, Jr., M.D. Department of Environmental Health, SC-34 University of Washington Seattle, Washington 98195 Telephone: 206-543-6991

FACULTY POSITION, INORGANIC CHEMISTRY

Applications are invited for a tenured position in the Department of Chemistry at Stanford University. Applicants must have outstanding research creden-tials in experimental inorganic chemistry and a strong commitment to teaching undergraduates as well as graduates. In applying, send curriculum vitae and bibliography to: Professor K. O. Hodgson, De-partment of Chemistry, Stanford University, Stan-ford, Calif. 94305. Stanford is committed to Equal Opportunity through Affirmative Action in employ-ment, and we are especially eager to identify minor-ity persons and women with appropriate qualifica-tions. The deadline for receipt of applications is 15 October 1979.

FACULTY POSITIONS

QUALIFICATIONS: M.D. degree, Board-eligibili-ty in internal medicine and its subspecialties pre-ferred. Applicant should have demonstrated abilities and skills in research, teaching, and clinical medicine.

RESPONSIBILITIES: Research activities will be RESPONSIBILITIES: Research activities will be commensurate with the interest and the demon-strated ability of the applicant. The applicant will be expected to participate in teaching and clinical activ-ities of the Department of Medicine.

SALARY: Salary is based on the academic level of sponsibilities.

EMPLOYER: The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

APPLICATION: Direct inquiries to, or submit cur-riculum vitae and bibliography to:

Randall W. Jordison, Administrator Internal Medicine University of Iowa Hospitals and Clinics Iowa City, Iowa 52242

FACULTY/OCCUPATIONAL EPIDEMIOLOGY

Faculty position, rank commensurate with experi-Faculty position, rank commensurate with experi-ence and training; doctoral degree (including M.D.) with a specialty in occupational epidemiology. Re-sponsible for developing and teaching courses in oc-cupational epidemiology and participating in pro-gram development of a graduate curriculum in occu-pational health. Active research program in occu-pational epidemiology. Must be familiar with and de-velop relationships with federal, state, and local oc-cupational health programs and with industry. Should have membership in professional occupa-tional health organizations.

Should have memory in processional occupa-tional health organizations. The University of California is an Equal Opportu-nity/Affirmative Action Employer and considers can-didates without respect to race, sex, or religion. In-terested candidates should submit curriculum vitae and three references to:

Dr. Robert A. Mah Chairman, Search Committee School of Public Health University of California Los Angeles, Calif. 90024

FACULTY POSITION IN CLINICAL CHEMIS-TRY, Division of Medical Technology, Department of Laboratory Medicine and Pathology, University of Minnesota. Available 1 January 1980. Doctorate degree and clinical laboratory experience required. Teaching experience desirable. Responsibilities include teaching clinical chemistry to undergraduate and graduate students in large medical technology program, conducting research, supervising section of clinical chemistry laboratory. Level of appointment and salary dependent on qualifications. Send résumé to: Professor Donna J. Blazevic, University of Minnesota, Box 198 Mayo Memorial Building, 420 Delaware Street, SE, Minneapolis, Minnesota 55455. The University of Minnesota is an Equal Opportunity Educator and Employer.

GENETICIST. Independent liberal arts college in the Baltimore-Washington area seeks a Ph.D. biologist for a tenure-track position beginning September 1980. Rank will be either assistant or associate professor depending on qualifications and experience. Courses to be taught are genetics and general biology. Candidate should have a concentration in molecular genetics and an interest in human genetics. Salary and fringe benefits competitive. An Equal Opportunity/Affirmative Action Employer. Apply before 30 October 1979. Request application material from: Dr. Michael Brown, Chairman of the Biology Search Committee, Western Maryland College, Westminster, Maryland 21157.

LITERATURE SCIENTIST. National Dairy Council currently has an opening in its Nutrition Research Division. Applicants should possess the following qualifications: outstanding, diversified scientific background, and ability to review scientific material and write technical review articles on food, nutrition, and health. Master's degree or above required. National Dairy Council offers an excellent salary commensurate with ability and experience, plus outstanding fringe benefits. If you are qualified for this position, please submit a résumé, including work experience, education, and salary history, to: R. A. Misch, NATIONAL DAIRY COUNCIL, 6300 North River Road, Rosemont, Ill. 10018. An Equal Opportunity Employer.

POSITIONS OPEN

TEXAS A & M UNIVERSITY

The Department of Mathematics at Texas A & M University invites nominations and applications for the position of **DEPARTMENT HEAD**. The starting date for the position is negotiable but must be before 1 August 1980. The applicant should have an outstanding research record, commitment to excellence in teach-

The applicant should have an outstanding research record, commitment to excellence in teaching, and demonstrated administrative ability to provide strong leadership for a broadly based department.

Texas A & M, the largest technical university in the state, currently has an enrollment of 30,000 students, of which 5000 are pursuing advanced degrees. The 60 faculty members of the Department of Mathematics are active in research and in the teaching of service courses. The department offers B.S., B.A., M.S., and Ph.D. degree programs in mathematics and jointly with the Institute of Statistics a B.S. program in applied mathematical sciences.

gram in applied mathematical sciences. Applicants should send complete curriculum vitae and names of three references by 30 November 1979

> Mathematics Head Search Committee Office of the Dean College of Science Texas A & M University College Station, Texas 77843 Equal Employment Opportunity through Affirmative Action

University of California, Irvine, Department of Pediatrics, is recruiting for a MEDICAL GENETICIST at the assistant or associate professor (line or in-residence) level. Requirements: expertise in biochemical genetics. Duties include clinical management of inborn errors of metabolism; instruction to medical and allied health professionals; research; and participation in departmental academic activities. All qualified candidates welcome; women and minorities encouraged to apply. Send curriculum vitae and three references to: Kenneth W. Dumars, M.D., Professor, Pediatrics Department, University of California, Irvine, Irvine, Calif. 92717. Application closing: 22 October 1979.

POSITIONS OPEN

HEAD, DEPARTMENT OF BIOCHEMISTRY

The University of Arizona invites applications and nominations for the position of head of the Department of Biochemistry. This department encompasses the biochemistry activities of the Colleges of Liberal Arts, Agriculture, and Medicine. The appointee will be expected to have an active personal research program, and to provide administrative leadership in the teaching, research, and interdepartmental efforts of the Department of Biochemistry at the undergraduate, graduate, and medical school levels. Curriculum vitae should be sent no later than 1 October 1979 to: Rubin Bressler, M.D., Chairman, Biochemistry Search Committee, Room 6334, Arizona Health Sciences Center, Tucson, Arizona 85724. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.

ENJOY JAPAN. IMMUNOLOGISTS, TOXICOL-OGISTS and PHARMACOLOGISTS. Men and women with M.S. or Ph.D. wanted by leading Japanese pharmaceutical company to work in their R & D institute in Japan. Top salary, housing, travel allowance. Contract negotiable. Send résumé to: IMCA, 1111, TBR Building, 2-10-2, Nagata-cho, Chiyoda-ku, Tokyo, 100 Japan.

LECTURER IN BIOLOGY AND HEALTH SCIENCE ADVISER

Position available at the University of California, Santa Barbara, effective 1 July 1980. Applications are sought from persons interested in a combined position of lecturer in biology and adviser in health sciences. Requires teaching contribution to molecular eukaryotic genetics and biochemical embryology and experience in advising students seeking health related careers.

Applications with curriculum vitae and names of references should be sent to: Chairman, Department of Biological Sciences, University of California, Santa Barbara, Calif, 93106. Letters of reference should not be sent until requested. Applications must be postmarked no later than 1 December 1979. The University of California is an Equal Opportunity/Affirmative Action Employer.

BIOCONVERSION OF SOLAR ENERGY

Postdoctoral positions are now available in the Biology Department of Brookhaven National Laboratory for biophysicists and biochemists to participate in the development of:

- Solar hydrogen-producing vesicle—Containing photosynthetic reaction centers, chlorophyll-proteins, electron carriers and enzymes; in the laboratory of Dr. John M. Olsen, and
- Solar desalination membrane—Containing proton pumps (from photosynthetic or purple membranes) and exchange diffusion carriers; in the laboratory of Dr. Goeffrey Hind.

Ample opportunities for basic research are afforded in these projects.

Applicants should submit curriculum vitae (including list of publications) and the names of three references to one of the above at:

Biology Department Brookhaven National Laboratory Associated Universities, Inc. Upton, Long Island, New York 11973

Brookhaven National Laboratory is an Equal Opportunity Employer, M/F.

BROOKHAVEN

ABORATORY

NATIONAL

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VICE PRESIDENT FOR ACADEMIC AFFAIRS

Applications and nominations are invited for the position of vice president for academic affairs at the University of Minnesota.

dent for academic affairs at the University of Minnesota. The vice president is the leading officer of the university, after the president, in terms of scope and breadth of responsibilities. The vice president has the direct line responsibility for the administration of all academic programs (except for health sciences) on the Twin Cities campus of the university and supervisory responsibility over the academic programs of the four coordinate campuses (Duluth, Morris, Crookston, and Waseca) and all extension and agricultural research activities of the university throughout the state of Minnesota. As the chief academic officer of the university, the vice president has the responsibility for making recommendations directly to the president on all faculty appointments and promotion and tenure matters.

and promotion and tenure matters. Qualifications: candidates must have a doctorate or equivalent educational background. They must also have: (i) substantial scholarly accomplishment; (ii) evidence of experience and capacity in a leadership role in academic governance in a major university or comparable experience; and (iii) teaching experience. Other factors that will be considered in selection include: broad intellectual interests and sympathies; a sense of quality and strong commitment to academic values and excellence in teaching, research, and service; exceptional talents in leadership and administration, including the ability to operate within the consultative tradition of the university and an ability to build support for the university in the wider community.

Applications and nominations should include as much information as possible on the experience and qualities that make the nominees outstanding candidates, and applications must list the names and addresses of three references. Applications and nominations should be sent to: Dean Fred Lukermann, Chair of the Selection Committee, College of Liberal Arts, University of Minnesota, 215 Johnston Hall, 101 Pleasant Street, SE, Minneapolis, Minn. 55455. Nominations must be postmarked or received by 1 October 1979; all applications must be received by 15 October 1979.

The University of Minnesota is committed to the policy that all persons shall have Equal Access to its programs, facilities, and employment without regard to race, creed, color, sex, national origin, or handicap.

GEOPHYSICIST

The Department of Earth Sciences, Case Western Reserve University, has an opening for an individual to develop a teaching and research program in geo-physics. Field of specialization is open, but appli-cants should have sufficient experience to teach apcants should have sumclent experience to teach ap-plied geophysics at the undergraduate and graduate levels. Ample opportunities exist for research col-laboration both within the Department of Earth Sci-ences and with faculty members in the School of En-

Ph.D. or equivalent is required. Please submit ap-plications, consisting of résumé, names of three ref-erences, and a statement of research and teaching interests, to:

Samuel M. Savin Department of Earth Sciences Case Western Reserve University Cleveland, Ohio 44106 Case Western Reserve University is an Equal Op-

portunity/Affirmative Action Employer.

HEAD, DEPARTMENT OF OCEANOGRAPHY TEXAS A & M UNIVERSITY

The College of Geosciences of Texas A & M Uni-The College of Geosciences of Texas A & M Uni-versity is searching for a head for its Department of Oceanography. Applications are sought from per-sons with superior records of teaching and research who have demonstrated leadership and administra-tive abilities. Applicants must be able to qualify for the rank of professor on the academic faculty of the university university.

The department offers M.S. and Ph.D. degrees with specializations in biological, chemical, geologi-cal/geophysical, and physical oceanography. It has 32 academic faculty and 112 graduate students. Fa-cilities include approximately 63,000 square feet of office, classroom, and laboratory space in a 15-story Oceanography and Meteorology Building on the College Station campus; storage and laboratory space at a nearby research annex; office, shop, and dock facilities at Moody College, Galveston, Texas; the R/V Gyre, a 174-foot occangoing research ves-sel; the R/V La Mer, a 38-foot shelf and coastal re-search boat; and the DRV Diaphus, a two-man re-search submersible. Annual levels of support are now about \$1.1 million from the state of Texas and \$4.5 million from federal grants and contracts.

Texas A & M University is an Affirmative Action/ Equal Opportunity Employer.

Applicants should provide curriculum vitae, a list of publications, a statement of teaching and research interests, and three letters of recommendation. Apply to:

Dean Earl Cook College of Geosciences Texas A & M University College Station, Texas 77843 Telephone: 713-845-3651

INSTRUCTOR—EAST TENNESSEE STATE UNI-VERSITY, COLLEGE OF MEDICINE, DEPART-MENT OF PHARMACOLOGY. Ph.D. with back-ground in medicinal chemistry/mass spectroscopy to assume responsibility as gas chromatography/mass spectrometry operator in clinical pharmacology-tox-icology laboratory. Appointee will be expected to icology laboratory. Appointee will be expected to participate in the instruction of medical and graduate students. Send résumé and three reference letters to: Ernest A. Daigneault, Ph.D., Chairman, Depart-ment of Pharmacology, East Tennessee State Univer-s'ty, College of Medicine, P.O. Box 19,810A, Johnson (ity, Tennessee 37601.

East Tennessee State University is an Equal Oppor-tanity/Affirmative Action Employer, M/F.

THE INSTITUTE FOR ADVANCED STUDY Princeton, New Jersey 08540 SCHOOL OF MATHEMATICS

The Institute for Advanced Study invites appli-cations for a professorship in the School of Mathe-matics. Candidates must have distinguished records mattes. Candidates must have distinguished records of achievement in mathematical research. The pro-fessors in the Institute's School of Mathematics are collectively responsible for maintaining a strong pro-gram of research through their own work and also by selecting a number of visiting members every year Applications, including curriculum vitae and list of publications, should be addressed to: Executive Offi-cer, School of Mathematics, Institute for Advanced Study, Princeton, New Jersey 08540. An Equal Op-portunity Employer; women and minority group members are encouraged to apply.

POSITIONS OPEN

MARINE INVERTEBRATE PHYSIOLOGIST

The Horn Point Environmental Laboratories of the University of Maryland, Center for Environmen-tal and Estuarine Studies, seeks to fill a tenure-track position at the rank of assistant professor in com-parative physicilogy of marine or estuarine inparative physiology of marine or estuarine in-vertebrates. Specialties of interest include bioener-getics, metabolism, physiological bases of behavior. Training in biochemistry desirable. Incumbent will cooperate in ongoing research, develop his/her own programs, train graduate students, and participate in

research-related public service activities. Opportu-nity exists to teach courses. Horn Point Environmental Laboratories is multi-disciplinary with research in a wide variety of envi-ronmental topics; it is located on an 850-acre campus on the Eastern Shore of Maryland, has a faculty of 12, and a total staff of 70.

Candidates should submit a résumé, a statement of research interests, and the names of four referees to: Invertebrate Search Committee, Horn Point Envito: Invertebrate Search Committee, Horn Point Envi-ronmental Laboratories, P.O. Box 775, Cambridge, Maryland 21613, by 30 September 1979. The University of Maryland is an Affirmative Ac-tion/Equal Opportunity Employer.

The Deep Sea Drilling Project, Scripps Institution of Oceanography, University of California, San Diego is currently seeking to fill a position for MA-RINE SEDIMENTOLOGIST, Ph.D. level. Strong background in mineralogy and sedimentary petrolo-gy is required. This position exists as a project staff scientist, who will engage in project-related and in-dependent scientific research. Appointment antici-pated in the assistant through associate professional research series. Salary commensurate with experi-ence. Please send complete résumé and names of at least three referees to: Dr. David G. Moore, Deep Sea Drilling Project, Mail Code A-031, University of Cali-fornia, San Diego, La Jolla, California 92093. The University of California, San Diego, is an Equal Op-portunity/Affirmative Action Employer. portunity/Affirmative Action Employer.

MEMBRANE BIOCHEMIST

A term appointment, not to exceed 3 years, is open with a group using modern techniques of high-reso-lution electron microscopy to investigate the struc-Intron electron microscopy to investigate the struc-ture and function of membrane proteins and related protein-lipid complexes. The primary responsibility of this position is the preparation of specimens for electron crystallographic structure analysis and re-lated aspects of research on the biological function of the materials studied. Preference will be given to candidates with a Ph.D. who have previous experi-ence in membrane isolation and purification, the bio-chemical characterization of integral membrane prochemical characterization and purneation, the bio-chemical characterization of integral membrane pro-teins, and the use of detergents in membrane re-search. Applications should include two copies of curriculum vitae with publications, a statement of research interests, and three letters of recommendation.

Applications should be sent to:

Dr. Robert Glaeser c/o Ronald Lowder Personnel Department Lawrence Berkeley Laboratory 1 Cyclotron Road Berkeley, Calif. 94720

An Equal Opportunity/Affirmative Action Employer, M/F

MUSEUM DIRECTOR

MUSEUM DIRECTOR The Commission of the Louisville and Jefferson County Museum of Natural History and Science is seeking a candidate for the position of museum di-rector. The museum opened in July 1977 and covers 129,000 square feet. The average yearly attendance is 70,000 persons. Candidate should possess a bach-clor's degree in natural science bistory, fine arts or 18 70,000 persons. Candidate should possess a bach-elor's degree in natural science, history, fine arts, or humanities with 4 years of professional level experi-ence in administration. Salary negotiable. Interested persons should send curriculum vitae, letters of rec-ommendation, and other supporting information to: James E. Hardy, Chairman, Museum Commission, 340 East Main Street, Louisville, Ky. 40202. An Equal Opportunity Employer

NEUROSCIENCE—LOCAL CIRCUIT ANALYSIS. Postdoctoral position available for research in elec-trophysiology and computer modelling of neuronal dendrites and synaptic interactions. Experience with computer programming desirable. Reply to: Dr. Gordon Shepherd, Section of Neuroanatomy, Yale University School of Medicine, New Haven, Conn. 06510 06510.

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

NEUROPHYSIOLOGIST UNIVERSITY OF CALIFORNIA SAN FRANCISCO

The Division of Neurobiology, Department of Physiology, seeks applicants for a new tenure-track position as assistant professor. We wish to hire a physiologist investigating integrative aspects of the physiologist investigating integrative aspects of the vertebrate central nervous system, and are particu-larly interested in those investigating motor systems. We encourage applications from women and mem-bers of minority groups and emphasize that the re-cruitment is an open one. Please send curriculum vitae, a brief description of research plans, and three latters of reference to: letters of reference to:

Dr. Zach Hall Department of Physiology University of California San Francisco, Calif. 94143

NUTRITION WRITER-Versatile, self-starting nu-trition information writer. Duties to include news retrition information writer. Duties to include news re-leases, features, radio and TV material, displays, as well as some meeting arrangements. Background should include a degree in journalism, training and/ or experience in nutrition, and 3 to 5 years of public relations experience. Send résumé to: Robert Ko-walski, Manager, Nutrition Information, National Dairy Council, 6300 North River Road, Rosemont, Il-linois 60018. An Equal Opportunity Employer.

OPHTHALMOLOGIST

Applicant must be a doctor of medicine and Board-Applicant must be a doctor of medicine and Board-eligible in ophthalmology. Requires special interest and training in heredito-degenerative diseases of the retina, especially diseases causing night blindness. Apply to: Dr. Victor T. Curtin, Bascom Palmer Eye Institute, P.O. Box 016880, Miami, Florida 33101. The University of Miami is an Equal Opportunity/ Affirmative Action Employer.

PHYSICAL CHEMISTRY (EXPERI-MENTAL). Applications are invited for a tenure-track LECTURESHIP to begin early in 1980. Send names of three referees and curriculum vitae to: Registrar, University of Sydney, New South Wales 2006, Australia, by 1 November 1979

PHYSIOLOGIST

The Department of Physiology in the College of Medicine at the University of South Alabama has a tenure-track position available 1 October 1979. Ap-plicants should have the Ph.D.; preference will be even the particulation with restricted and thereines are should be with restricted and thereines are should be applied by the second state of the given to candidates with postdoctoral training, rec-ord of outstanding research accomplishment, and teaching experience in human physiology. Please have three professional persons well acquainted with your work send letters of recommendation directly to the address given below. Applications should include résumé, copies of most significant publications, and summary of research goals. Send applications to:

Aubrey E. Taylor, Chairman Department of Physiology University of South Alabama College of Medicine Mobile, Alabama 36688

Equal Opportunity/Affirmative Action Employer

DEPARTMENT OF PHYSIOLOGY UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

Applications and nominations are invited didates must have completed a postdoctoral fellowship and be prepared to initiate an in-dependent research program capable of competing for extramural support. This ap-pointment can be made at any level and any area of physiology exclusive of reproductive endocrinology and sensory-motor neurophysiology.

Please send curriculum vitae, references, Please send curriculum vitae, references, and a brief statement of research plans to: Chairman, Department of Physiology, Uni-versity of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania 15261.

An Equal Opportunity/Affirmative Action Employer

ASSOCIATE DEAN FOR RESEARCH DEVELOPMENT University of Illinois at Chicago Circle

The primary responsibility of the associate dean will be to stimulate applied and basic research on interdisciplinary problems characteristically addressed by research centers and institutes. However, he or she must also be able to coordinate the development and administration of sponsored research on a diversified campus. This includes work with young faculty as well as established researchers, development and maintenance of strong contacts with granting agencies and foundations, and preparation or assistance in the preparation of large-scale proposals. The associate dean will report to the dean

The associate dean will report to the dean of the Graduate College and will work with a small staff. Responsibilities will interface with but be separate from those of the Office of Grants and Contracts, which is responsible for fiscal administration. Frequent travel is expected.

Candidates should have a personal record of successful sponsored research and/or a record of successful research development particularly focused on interdisciplinary problems in the natural and social sciences and engineering; some experience in grants administration at a major university, an agency of government, or a comparable research institution is desirable; a Ph.D. in natural or social science or engineering is expected. Salary is negotiable.

The University of Illinois at Chicago Circle was established in 1965. Current graduate and undergraduate enrollment is about 21,000. There are 1100 faculty members. Federal obligations exceed \$10 million.

Closing date: 1 October 1979. Please send letter of application and résumé, with references to: Dr. Richard Buchanan, Graduate College, University of Illinois at Chicago Circle, Box 4348, Chicago, Illinois 60680.

The University of Illinois at Chicago Circle is an Equal Opportunity/Affirmative Action Employer.

OFFICE OF NAVAL RESEARCH -

is seeking a

DEPUTY DIRECTOR TECHNOLOGY PROGRAMS

This is a Senior Executive Service (SES) General position, ES-1 to ES-4, with a salary range of \$44,756 to \$47,500, depending upon qualifications. The salary level increases to a potential of \$50,100 maximum on October 1, 1979. The position is located in Arlington, Virginia.

The Deputy Director provides assistance and support to the Director, Technology Programs in carrying out the functions of the Technology Directorate. The Technology Directorate manages the overall ONR exploratory development program, and identifies, plans and manages innovative and specialized programs in basic and applied research, exploratory development, and studies and analyses applicable to Navy and Marine Corps operations. Establishes overall policy and administrative procedures of the Technology Directorate. Plans, develops and evaluates ONR Exploratory Development Program.

Applicants must have Ph.D. or its equivalent experience in the physical sciences, mathematics or engineering with at least five years of specialized experience in technology base efforts and management directed to the solution of specific development problems.

Send resume no later than September 22, 1979 to: Office of Naval Research Personnel Services Division 800 N. Quincy St., Rm. 823 Code 722 Arlington, VA 22217 Attn: Announcement No. 79-35

> U.S. Citizenship Required An Equal Opportunity Employer

HEALTH SCIENTIST ADMINISTRATOR

The National Heart, Lung, and Blood Institute's Division of Heart and Vascular Diseases is seeking applicants for the position of Health Scientist Administrator, GS-15, with an annual salary ranging from \$38,160 to \$47,500. The individual selected will serve as Chief of the Lipid Metabolism Branch, a subdivision of the Etiology of Arteriosclerosis and Hypertension Program. The Branch supports a collaborative program of research into the structure, metabolism, and function of lipids and lipoproteins as they relate to arteriosclerosis. In addition, the Branch is responsible for a national research program designed to increase knowledge related to the diagnosis and management of hyperlipoproteinemia and establish opportunities for further research into its causes and treatment. A major portion of the organization's resources is devoted to population studies and clinical trials of hypocholesterolemic regimens.

Applicants must have an M.D. degree with demonstrated competence in research in lipid metabolism involving clinical investigation and population research and, preferably, experience with animal research as well. Experience with lipid metabolism in relation to ischemic disease and other atherogenesis is highly desirable. Applicants should be familiar with NIH policies and procedures for research administration and should have prior experience in the management of major biomedical research programs.

Those interested in being considered for this position should submit a Standard Form 171, Personal Qualifications Statement, along with a Curriculum Vitae and bibliography by September 21, 1979, to the NHLBI Personnel Office, NATIONAL INSTITUTES OF HEALTH, Public Health Service, 9000 Rockville Pike, Building 31, Room 5A-32, Bethesda, MD 20205. (Telephone: (301) 496-6477). Equal Opportunity Employer.

NATIONAL INSTITUTES OF HEALTH

Marine Chemist-Radiochemist

Applications are invited for a staff position at the Assistant Scientist to Associate Scientist level in the Chemistry Department at the Woods Hole Oceanographic Institution. Applicants should have a Ph.D. and demonstrated excellence in research in the area of marine chemistry with particular interest and expertise in radiochemistry involving the uranium-disequilibria series, transuranics or other radionuclides. Starting positions and salaries will depend on experience but will be in the range of \$19,000 - \$27,000. Starting dates are open, but the successful applicant would be expected to commence before summer, 1980. Send resume, transcripts, and reprints to: Personnel Manager. **WOODS HOLE**

OCEANOGRAPHIC

INSTITUTION Woods Hole, MA 02543

7 SEPTEMBER 1979

NEUROANATOMIST

The Neurosurgical Service of the Massachusetts General Hospital is seeking a basic neuroanatomist, at the assistant professor level. The person filling this position will be a member of the basic neurobiol-ogy laboratories of the service, and will be expected to initiate and carry out an independent research program. An interest in the development and regen-eration of the mammalian nervous system is desirable. Experience in histochemistry and cytochemis-try as well as classical neuroanatomical methods is essential. Candidates should forward curriculum vitae to: Dr. Nicholas T. Zervas, Chief, Neurosurgical Service, Massachusetts General Hospital, Boston, Mass. 02114.

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

PATHOLOGY — (Number 109). Professor and Head, serve as head of the Academic Department of Pa-thology in the College of Medicine, as well as direc-tor of the pathology laboratory in the University Hospital. Requirements: M.D., Board-certified in pathology; (Number 184) Scientific Director (OCMH Electron Microscopy Laboratory), ultrastructural scientist experienced in all phases of scanning and transmission electron microscopy. The scientific di-rector is required to train technologists, students, and faculty. Ph.D. or equivalent qualifications. PHYSIOLOGY—(Number 182). Research Associate position available immediately for the studies related to phosphorylation of myocardial muscle proteins, in a well-equipped laboratory. Experience in the field of isolation and purification of muscle proteins and be well acquainted with chromatographics tech-and be well acquainted with chromatographics techniques

Applicants should send curriculum vitae identifying Applicants should send chirterini vitae identifying vacancy number for which they are applying to: Dr. Thomas N. Lynn, Dean, College of Medicine, Univer-sity of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Okla. 73190. We are an Equal Opportunity Employer.

POSTDOCTORAL IN ENVIRONMENTAL MI-CROBIOLOGY (research associate). Must have CROBIOLOGY (research associate). Must have demonstrated interests in environmental/aquatic mi-crobiology; \$11,000 per year on 2-year grant. Start 1 November 1979. Contact: Dr. R. J. Seidler, Depart-ment of Microbiology, Oregon State University, Cor-vallis, Oregon 97331. Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1073 of 1973.

POSTDOCTORAL

A postdoctoral position is available in the Biological Markers Program of Frederick Cancer Research Center. This program is aimed at discovering and de-veloping tumor markers which will be clinically useful in detection and treatment of cancer. Research will involve identification of either proteases or protein degradation fragments that have been generated as the result of proteolytic activities in either the blood or urine of cancer patients. Please send résumé and three references to:

Personnel Position Number 1329 FREDERICK CANCER RESEARCH CENTER Litton Bionetics, Inc. P.O. Box B Frederick, Md. 21701

Equal Opportunity Employer, M/F

POSTDOCTORAL POSITION available immediately for structural and chemical studies of sickle cell hemoglobin fiber formation. Applicants with experience in protein chemistry and electron micros-copy will be preferred. The position is available for 1 year in the first instance. Salary is dependent upon experience. Send copy of curriculum vitae and two letters of reference to: **Professor M. W. Makinen**, Department of Biophysics and Theoretical Biology, The University of Chicago, Chicago, Ill. 60637. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN IMMU-POSIDOCTORAL POSITION IN IMMU-NOLOGY. Research involves study of im-munologic aspects of multiple sclerosis and experimental allergic encephalitis. Recent Ph.D. in immunology preferred. Write: Lynn E. Spitler, M.D., University of California Medical Center, San Francisco, California 94143 94143.

POSTDOCTORAL POSITION. Applications of stable isotopes and pro-drugs to the study of n transmitter systems; \$14,000. Send résumé to:

Department of Medicinal Chemistry/Pharmacognosy School of Pharmacy School of Pharmacy University of Maryland 636 West Lombard Street Baltimore, Maryland 21201 An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION. Enzymolo gist, with organic chemistry background, for research on the mechanism of the ribulosecarboxylase/oxygenase reaction. Send curriculum vitae and names of references to: N. E. Tolbert, Department of Biochemistry, Michigan State University, East Lansing, Mich. 48824.

POSTDOCTORAL POSITION. Available immedi-ately for up to 3 years. Biochemistry/pharmacology background. Study of cultural normal and neoplastic hepatic cell lines with emphasis on antifolate trans-port, metabolism, and cell resistance. Salary: \$11,500 to \$14,000 depending on experience. Send résumé to: Dr. John Galivan, Division of Laboratores and Research, New York State Department of Health, Empire State Plaza, Albany, New York 12201.

POSTDOCTORAL POSITION. After 1 December 1979; salary negotiable. Changes in histone variant composition and chromatin structure, as identified by biochemical and immunologic probes, correlated with changing malignant states of a cell. Relationwith changing malignant states of a cell. Relation-ship of histone variants in nucleosome repeat length in normal and malignant cells showing different de-grees of malignancy and specific gene (globin) ex-pression. Analysis of histone variants in human can-cers. Inquire: Dr. Stuart B. Levy, Tufts-New Eng-land Medical Center, 171 Harrison Avenue, Boston, Mass. 02111. An Equal Opportunity Employer, M/F.

POSTDOCTORAL POSITION-To start January 1980, for an individual with expertise in biochemis-try interested in research and training in the area of molecular endocrinology. Existing studies include ligand-binding kinetics (calf and human uterus), isolation and characterization of the estrogen receptor, its interactions with chromatin, and modification of the receptor structure and function. Stipend: \$12,000 to \$14,000 per annum, depending upon qualifica-tions. Send curriculum vitae and names of three ref-erences to: Dr. A. Notides, Department of Pharma-cology, University of Rochester, School of Medicine and Dentistry, 601 Elmwood Avenue, Rochester, New York 14642.

POSTDOCTORAL POSITIONS-Studies of en-POSIDOCIORAL POSITIONS-Studies of en-zyme-polymer conjugates by magnetic resonance and other methods; structural studies of proteins by various NOE experiments. Experience in protein isolation, polymer synthesis, and characterization or FTNMR spectroscopy an asset. Salary dependent on qualifications. Write or telephone: J. T. Gerig, Department of Chemistry, University of California, Santa Barbara, Calif. 93106, by 11 November 1979. An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION available immediately for Ph.D. biochemist or molecular biologist to pursue research into molecular differentiation of pursue research into indicutar differentiation of neuroblastoma, glioma, and hybridoma cells in cul-ture. Special interests in immunochemical approach-es, protein characterization on 2-D gels, neurotrans-mitter metabolism, and neuronal-glial interaction are neuronal send send unrivulture to the Decen N. Be encouraged. Send curriculum vitae to: Roger N. Ro-senberg, M.D., Chairman, Department of Neurology, Laboratory of Cellular Neurobiology, The University of Texas Southwestern Medical School, Dallas, Texas 75235

Two POSTDOCTORAL POSITIONS by October or later for recent Ph.D.'s in biochemistry or related disciplines interested in: (i) Cell surface hormone receptors in cultured cells [Dr. M. Blecher; see *Exp. Cell. Res.* **120**, 119 (1979); *Clin. Chem.* **25**, 11 (1979); *BBA* **542**, 470 (1978); *FEBS Lett.* **95**, 319 (1978)], and BBA 542, 470 (1978); FEBS Lett. 95, 319 (1978)], and (ii) Nucleosomal chromatin structure, modification and function in gene replication and repair [Dr. M. Smulson; see PNAS 76, 1628 (1979); Cancer Res. 39, 1405 (1979); Biochem. 18, 983 (1979)]. Competitive salaries and faculty-level fringe benefits. Write to: Dr. M. Blecher or Dr. M. Smulson, Department of Biochemistry, Georgetown University, School of Med-icine, Washington, D.C. 20007.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE(S), TOXICOLOGY AND PHARMACOLOGY—Posi-tions are available for studies on: (i) amino acid neu-rotransmitters involved in abused drugs, and (ii) bio-chemical mechanisms of neurotoxicology. Experience in neurochemistry or pharmacology is essential. Stipend begins at \$12,000 to \$14,000. Send essential. Supera begins at \$12,000 to \$14,000. Send curriculum vitae and two letters of reference to: Dr. I. K. Ho, Department of Pharmacology and Tox-icology, University of Mississippi Medical Center, 2500 North State Street, Jackson, Mississippi 39216. The University of Mississippi Medical Center is an Equal Opportunity Employer, M/F.

POSTDOCTORAL/RESEARCH ASSOCIATE CAN-CER CENTER, UNIVERSITY OF LOUISVILLE. A position for a minimum of 2 years is available immeposition for a minimum of 2 years is available imme-diately at the new Cancer Center of the University of Louisville. The emphasis of the position involved will be the study of intermediary metabolism in nor-mal and tumor-bearing animals. Ph.D. in biochemis-try or nutrition is required, with experience in me-tabolite assays, amino acid determination and me-tabolism. Previous experience in organ perfusion and protein turnover studies helpful. Salary: \$12,000 per year. Send résumé and names of three refer-ences to: Dr. G. de Rosa, M.D., Ph.D., Cancer Cen-ter, University of Louisville, Kentucky 40232. The University of Louisville, Kentucky 40232. The University of Louisville is an Affirmative Action/ Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE, fa-POSIDOCTORAL RESEARCH ASSOCIATE, fa-miliar with animal surgical techniques (bypasses and so forth) and with research experience in throm-bosis. Research involves action of fibrinolytic agents in vivo [*Thromb. Res.* 13, 931 (1978)]. Salary: about \$12,000 per year for 2-year appointment. Send ré-sumé and names of three references to: **Dr. Johannes Everse, Department of Biochemistry, Texas Tech Uni-versity, School of Medicine, Lubbock, Texas 79430.** Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE—Im-mediate opening, to participate in a cross-national analysis of policies controlling carcinogenic sub-stances. Familiarity with the scientific principles of scancer testing and their implications for public pol-icy formulation preferred. Language skills in Ger-man and/or French desirable. One-year appointment with the possibility of renewal. Send résumé and let-ters of recommendation to: **Program on Science**, **Technology and Society**, 632 Clark Hall, Cornell Uni-versity 149429. V 14853 versity, Ithaca, N.Y. 14853.

POSTDOCTORAL/RESEARCH ASSOCIATE **Microbial Membrane Transport**

A position is available to study sugar transport in E. coli. Experience with microbiological and biochemi-cal techniques would be useful. Write to: Dr. T. H. Wilson, Department of Physiology, Harvard Medical School, 25 Shattuck Street, Boston, Mass. 02115.

POSTDOCTORAL RESEARCH ASSOCIATE to aid in the study of the kinematics and dynamics of the Antarctic Circumpolar Current. Ph.D. and experi-ence in time series analysis of oceanographic measurements are required. Interest in comparing theo-retical models with oceanographic observations is essential. The position begins 15 October and a 2- or year duration is anticipated; \$18,000 per year. Send résumé and names of three references to: **Dr**. R. Dale Pillsbury, School of Oceanography, Oregon State University, Corvallis, Oregon 97331 by 30 Sep-tember 1979. Oregon State University, an Affir-mative Action/Equal Opportunity Employer, com-plies with Section 504 of the Rehabilitation Act of 1973.

PRESIDENT

The Oregon Graduate Center, an independent, growing, fully accredited graduate education and re-search institution for basic and applied research in the Pacific Northwest is looking for an energetic leader. Ideal candidate will have a combination sci-ence/academic/business background, excellent fundraising talent, and will relate well to academia, in-dustry, government, and work closely with the Board of Trustees.

Applications to:

Secretary Secretary Presidential Search Committee Oregon Graduate Center 19600 Northwest Walker Road Beaverton, Oregon 97005 Telephone: 503-645-1121

An Affirmative Action/Equal Opportunity Employer

BIOCHEMICAL PHARMACOLOGIST

Pharmaceutical Research

The Gastrointestinal Pharmacology Section of our Biomedical Research Department has a 1980 opening for a Ph.D. trained in biochemical pharmacology or biochemistry. Preference will be given those with additional academic post-doctoral work. Demonstrated competence in receptor biochemistry and/or radioligand binding methodology a distinct advantage.

We are affiliated with ICI pharmaceuticals (England) whose research has led to worldwide introduction of the first beta blocker, the first antilipidemic agent, and a nonsteroidal antiestrogen offering breast cancer patients a better quality of life. Additional areas of inquiry in our U.S. program include pulmonary, CNS, renal, and arthritis.

Campus setting, 25 miles south of Philadelphia. Competitive salaries/ benefits. Please submit detailed CV. Principals only.

> C.T. Brodigan Employee Relations

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- OFFICE OF NAVAL RESEARCH

is seeking a

DIRECTOR, MATHEMATICAL and INFORMATION SCIENCES DIVISION

This is an ES-1 through ES-4, Senior Executive Service (SES), General position, with salary range of \$44,756 to \$47,500, depending upon experience. Salary increases to potential \$50,100 maximum on October 1, 1979.

The Director, Mathematical and Information Sciences Division is responsible for encouraging, promoting, planning, initiating and directing a program of sponsored basic research and development in the fields of mathematics, statistics, information systems, computer hardware and software, logistics, operations research, and hydrodynamics. The incumbent advises and assists the Director, Research Programs in policy formulation and implementation.

Candidates must have Ph.D or equivalent in one of the following fields or any combination of: Applied mathematics, mechanics, statistics, operations research, computer science or information sciences.

Interested candidates must send resume no later than October 15, 1979 to:

Ms. Michele Talbot Office of Naval Research Personnel Services Division 800 N. Quincy St., Rm. 823 Arlington, VA 22217 ATTN: Announcement No. 79-36

> U.S. Citizenship Required An Equal Opportunity Employer

RESEARCH SCIENTIST

Ames Company Division of Miles Laboratories, Inc., a leading manufacturer of Clinical Laboratory Diagnostic Products is seeking a person who is interested and enjoys design and assembly of research support measurement equipment. The ideal candidate should be a gadgeteer familiar with optics, electronics and comfortable with mechanical design and computer interfacing. A PhD in a physical science or engineering is desirable, but not absolutely essential.

The Ames Company is located in Elkhart, Indiana, a community of 50,000 population. We offer excellent recreational and educational facilities as well as convenient accessibility to the Chicago area. Excellent starting salary commensurate with experience plus a superior benefits program. Relocation expenses paid by the Company. Please send complete resume, including salary history, in confidence to:

Carolyn Smith Placement Representative Department 930

MILES LABORATORIES, INC. P.O. Box 40, Elkhart, Indiana 46515

An Equal Opportunity Employer M/F/H



BIOMEDICAL ENGINEERING PhD

American Hospital Supply Corporation has extraordinary opportunities for an engineering PhD to work with our Applied Research Center in Southern California. This team of scientists...distinguished PhDs...are in the forefront of developing tomorrow's technology in the health care industry. AHSC is looking for the following individual.

This position will be responsible for monitoring and assessing new developments and products in the medical device area. The preferred candidate will have 3-6 years experience in the health care industry or a related health care research environment.

We offer an excellent opportunity for growth and recognition as well as an outstanding compensation package. Please respond today, in complete confidence, to:

Mike Miller

AMERICAN HOSPITAL SUPPLY CORPORATION 1 American Plaza Evanston, IL 60201

We are an equal opportunity employer m/f.

AMERICAN HOSPITAL SUPPLY CORPORATION

7 SEPTEMBER 1979

POSTDOCTORAL RESEARCH ASSOCIATE—Dynamic Christian university has position available immediately for research on the effects of cancer drugs on DNA functions. Involves analysis of drug-DNA binding sites, determination of biological effects of drug binding on template functions, fidelity of replication, and cellular viability. Prefer experience in purification and assays of mammalian DNA polymerases. Stipend: \$12,000. Send curriculum vitae and references to: Dr. Harold C. Harder, Department of Pharmacology, Schools of Medicine and Dentistry, Oral Roberts University, 7777 South Lewis, Tulsa, Oklahoma 74171. Oral Roberts University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE—To study mechanism and control of polypeptide chain initiation in eukaryotes. Research experience in protein purification, characterization is required. Ph.D. biochemistry preferred. Position available immediately. Send curriculum vitae and two letters of recommendation to: Dr. R. Mazumder, Department of Biochemistry, NEW YORK UNIVERSITY SCHOOL OF MEDICINE, 550 First Avenue, New York, N.Y. 10016. An Equal Opportunity/Affirmative Action Employer, M/F.

POSTDOCTORAL RESEARCH POSITION

A 2-year position is available immediately to research problems in mammalian developmental genetics and reproductive biology. Initial salary is \$10,500, plus fringe benefits. Applicant should send curriculum vitae and names of two referees to: Dr. Nina Hillman, Biology Department, Temple University, Philadelphia, Pennsylvania 19122.

POSTDOCTORATE: PLANT DEVELOPMENTAL BIOLOGY

Positions are available for maize developmental biology research in joint program of Dr. Green, Dr. Gengenbach, Dr. Phillips, and Dr. Rubenstein. Areas include selection and characterization of mutants from maize tissue culture; purification and characterization of enzymes regulating amino acid metabolism; genetic and biochemical factors influencing amino acid and protein synthesis in maize kernels; and the molecular biology of storage protein synthesis in maize kernels.

Synthesis in maize kernels. Applicants should have training in developmental biology, plant genetics, or biochemistry. Send curriculum vitae, description of research interests, and names of three references to one of the above individuals, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul, Minn. 55108.

The University of Minnesota is an Equal Opportunity Employer and Educator.

PROGRAM DIRECTOR (ATMOSPHERIC CHEMISTRY) (\$32,442 to \$42,171 per annum)

The National Science Foundation, Division of Atmospheric Sciences, is seeking qualified candidates for a 2-year appointment as program director for atmospheric chemistry. Responsibilities include directing program activities including allocation of resources, establishing overall goals and objectives, evaluating proposals, preparing recommendations for grants, and monitoring the progress of funded projects. Position is excepted from the competitive civil service. Salary is negotiable based on qualifications and experience within salary range shown above. Health, life insurance, and leave benefits are available. Candidates should have a Ph.D. or its equivalent in atmospheric chemistry and have in addition at least 4 years of research experience with some demonstrated administrative experience. Send résumé to: National Science Foundation, DPM, EMPB 79-19, 1800 S Street, NW, Washington, D.C. 20550 by 19 October 1979. For further information, telephone: Catherine Hobek at 202-632-4124.

An Equal Opportunity Employer

RESEARCH ASSOCIATE DEPARTMENT OF PEDIATRICS

Wanted: Ph.D. in physiology for the position of research associate in the Department of Pediatrics, St. Francis Hospital-Medical Center. The candidate must have background in cardiopulmonary physiology and interest in research in the development of control mechanisms of cardiorespiratory system in the newborn. Position available immediately. Contact: S. N. Sinha, M.D., Professor and Chairman, Department of Pediatrics, St. Francis Hospital-Medical Center, North Building, 530 N.E. Glen Oak Avenue, Peoria, Ill. 61637; or telephone: 309-672-2570.

POSITIONS OPEN

FULL PROFESSOR OCCUPATIONAL HEALTH ENGINEERING

To fill joint appointment in a College of Medicine and School of Engineering and to assume the associate directorship of a new center for Occupational Health and Safety.

Qualifications will include an engineering degree and earned doctorate. A high level of achievement in research, teaching, and administration with current active research programs are essential. Experience at governmental policy levels in occupational health and safety highly desirable. Applications will be accepted until the position is filled. Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.

Please send curriculum vitae, a statement of current research interests, and the names of three or more references to:

T. Timothy Crocker, M.D. Department of Community and Environmental Medicine University of California College of Medicine Irvine, California 92717

UNIVERSITÄT HOHENHEIM

Am Institut für Biologische Chemie und Ernährungswissenschaft der Fakultät für Allgemeine und Angewandte Naturwissenschaften der Universität Hohenheim ist die Stelle eines Professors für Ernährungswissenschaft (C 4) wieder zu besetzen. Zu den Aufgaben des Stelleninhabers zählt vor allem die Vertretung des Faches Ernährungswissenschaft in Forschung und Lehre in den Studiengängen Ernährungswissenschaft, Lebensmitteltechnologie, Haushaltswissenschaft und Biologie.

Entsprechend der Ansiedlung der Studiengänge Ernährungswissenschaft und Lebensmitteltechnologie im naturwissenschaftlichen Bereich sollte der Forschungsschwerpunkt des Bewerbers auf diesem Gebiet liegen und sich besonders mit den biologischchemischen Aspekten der Ernährung befassen. Eine Mitarbeit im Sonderforschungsbereich 142 (Ernährungsphysiologische Qualität landwirtschaftlicher Produkte) ist erwünscht.

Voraussetzungen: Habilitation oder gleichwertige wissenschaftliche Leistungen.

Bewerbungen mit den üblichen Unterlagen sind bis zum 31 Oktober 1979 an das:

Dekanat für Allgemeine und Angewandte Naturwissenschaften der Universität Hohenheim, Postfach 106, 7000 Stuttgart 70, Germany

zu richten.

RESEARCH ASSISTANT PROFESSOR

Ph.D. in metabolic endocrinology required, plus at least 2 years of postdoctoral work in the area of neural/peptidergic control of endocrine pancreas and regulation of glucose and free fatty acid metabolism. Experience with peptide hormone assays and electronics associated with peripheral nerve stimulation very desirable. Send curriculum vitae and three letters of recommendation to: Daniel Porte, Jr., M.D., VA Medical Center, 4435 Beacon Avenue South, Seattle, Washington 98108. The University of Washington is an Equal Opportunity Employer.

RESEARCH ASSISTANT PROFESSOR TOXICOLOGY/PHARMACOLOGY

For participation in program in anticancer drug development. Ph.D. and 2 years of postdoctoral training required. Send curriculum vitae to: Director, Vermont Regional Cancer Center, University of Vermont, 1 South Prospect Street, Burlington, Vermont 05401.

An Affirmative Action Employer

RESEARCH ASSOCIATE or POSTDOCTORAL-Research involves the investigation of messenger RNA control and differentiation muscle cells utilizing techniques of messenger isolation cDNA-RNA hybridization, cell-free translation, two dimensional gel electrophoresis, electron microscopy, and molecular cloning. Particular emphasis at present concerns the mammalian actin gene, control of transcription, and organization in the muscle genome. Some background in molecular biology is recommended. Starting salary: \$12,000 to \$15,000 depending on experience. Send curriculum vitae and names of three references to: Dr. Robert H. Singer, Department of Anatomy, UNIVERSITY OF MASSACHU-SETTS MEDICAL CENTER, 55 Lake Avenue North, Worcester, Mass. 01605. An Affirmative Action/ Equal Opportunity Employer.

POSITIONS OPEN

HENRY R. LUCE PROFESSORSHIP IN COGNITIVE SCIENCE

Endowed chair available at the University of Rochester for creative and productive scholar whose interests cross **philosophy**, **computer science**, **psycholo gy**, and **psychobiology**. An interdisciplinary program, already under way at both graduate and undergraduate levels, will provide a stimulating environment for innovative teaching and research in cognition. Nominations and applications should be sent to: Henry E. Kyburg, Jr., Department of Philosophy, University of Rochester, Rochester, N.Y. 14627.

Position open: **RESEARCH ASSOCIATE** with interest in reproductive biology. Experience in immunocytochemistry and electron microscopy would be desirable. Send inquiries to: Dr. Dwayne A. Ollerich, Chairman, Department of Anatomy, University of North Dakota, School of Medicine, Grand Forks, North Dakota 58201.

The University of North Dakota is an Equal Opportunity Employer.

RESEARCH ASSOCIATE (POSTDOCTORAL) position available 16 September 1979. Duties will involve assessment of benthic algal production and taxonomic structure in the Columbia River estuary. Relevant pre- or postdoctoral experience necessary. Salary: \$15,000. Send curriculum vitae, reprints if any, transcripts of academic records, and three letters of recommendation to: Dr. C. David McIntire, Department of Botany and Plant Pathology, Oregon State University, Corvallis, Oregon 97331. Oregon State University is an Affirmative ActionEqual Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.

RESEARCH BIOENGINEER HYPERBARIC MEDICINE AND PHYSIOLOGY DEPARTMENT NAVAL MEDICAL RESEARCH INSTITUTE

Ph.D. bioengineer to assume leadership of multidisciplinary thermal stress program in diving. Studies range from the physiology of induced hypothermia to heat transfer and the design of thermal protective garments. Incumbent will also serve as a consultant to the department in the areas of fluid mechanics and hyperbaric systems design. Post requires outstanding capabilities in creative research, leadership, and management combined with established stature in the scientific community. Previous experience in hyperbaric research highly desirable. Applicants must meet qualification requirements established by the Office of Personnel Management as published in the X-118 Handbook (available for review in most federal personnel offices). Position is career Civil Service, paying \$27,453 per annum. Send detailed résumé, or Standard Form 171, Personal Qualification Statement, to:

Civilian Personnel Service National Naval Medical Center Bethesda, Maryland 20014 Equal Opportunity Employer

RESEARCH MEDICAL OFFICER, GS-14: The Hyperbaric Medicine and Physiology Department of the Naval Medical Research Institute is seeking applicants for the position of head, Pulmonary Research Branch in the Cardiopulmonary Physiology Division. Research efforts of the division are focused on respiratory and cardiovascular function in the diving environment. Current areas of investigation are: pulmonary oxygen toxicity, respiratory control mechanisms, and respiratory mechanics in the hyperbaric environment. Responsibilities of the position include direction of ongoing research projects which are relevant to hyperbaric medicine and the goals of the laboratory. Approved research projects are funded by the Naval Medical Research and Development Command. Facilities include modern, well-equipped laboratories and supporting services and an extensive hyperbaric chamber complex with capabilities for both animal and human exposures. Applicants for this career civil service position must meet the requirements specified in the CSC Handbook X-118, which include an M.D. degree and Ph.D. (or equivalent) in physiology. In addition, research experience demonstrating the ability to conduct significant medical research is required. Experience must reflect comprehensive knowledge of respiratory physiology, the ability to direct an active research program, and outstanding professional competence. Applications (Standard Form 171) should be submitted to: National Naval Medical Center, Civilian Personnel Service, Building 123, Bethesda, Md. 20014. An Equal Opportunity Employer.



RESEARCH ASSOCIATE position available for Ph.D. or equivalent for epithelial transport studies. Previous experience with ion transport in in vitro systems necessary. Send résumé and three refer-ences to: Dr. Henry J. Binder or John P. Hayslett, Department of Medicine, Yale University, 333 Cedar Street, New Hayen, Connecticut 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE POSITION. The Ford Forestry Center at Michigan Technological Univer-sity has an immediate opening for a qualified person with a basic education in chemistry as well as experiwith a basic education in chemistry as well as experi-ence in the manipulation of atomic absorption spec-trophotometer and other analytical equipment. Duties will include the performance of various phys-ical and chemical analyses (CEC, cations, moisture determination, Fe, Al, organic matter, particle size determination, and weatherable mineral determina-tions). Master of science preferred or 1 year of expe-rience with a bachelor of science degree. Send ré-sumés to: Sara Jane Poli, Employee Relations Office, Michigan Technological University, Houghton, Mich-igan 49931. Michigan Technological University is an Equal Opportunity Educational Institution/Equal Opnortunity Employer. Opportunity Employer.

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SCIENTIFIC EXCHANGES

SCIENTIFIC EXCHANGES WITH USSR AND EASTERN EUROPE Commission on International Relations (USSR/EE) National Academy of Sciences 2101 Constitution Avenue Washington, D.C. 20418

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CONFERENCE

THE NEW YORK ACADEMY OF SCIENCES Conference on GENETIC VARIATION OF VIRUSES Barbizon-Plaza Hotel, New York City 28 to 30 November 1979

The conference is cochaired by Peter Palese (Mount Sinai School of Medicine, New York) and Bernard Roizman (University of Chicago). Important topics to be discussed include the genetic mechanisms re-sponsible for selection, variability and stability of vi-ruses in nature, whether or not all viruses exhibit correction universition of under the sense concerned with the ruses may vary more than others.

The conference will also examine the implications of The conference will also examine the implications of genetic variation in different viral systems. Evidence is accumulating that specific genes determine the host range, virulence, and growth characteristics of viruses. Equally significant is the fact that genetic variation may be used in the epidemiological identification of strains. The conference will bring together virologists actively engaged in basic research and those involved in the development of antiviral vaccines. For further information write to:

Conference Director The New York Academy of Sciences 2 East 63 Street New York, N.Y. 10021

TRAINING PROGRAM

RESPIRATORY PHYSIOLOGY TRAINING PRO-GRAM funded by NHLBI. Postdoctoral train-eships available July 1980 for 1 to 3 years. Emphaecsnips available July 1980 for 1 to 3 years. Empha-sizes tissue respiration, cell membranes, smooth muscle, lung metabolism, respiration control, and gas exchange. Write: Education Officer, Respiratory Physiology Group, Department of Physiology, Univer-sity of Pennsylvania School of Medicine/G4, Phila-delphia, Pa. 19104. An Equal Opportunity Employer.

FELLOWSHIPS

ENDOCRINOLOGY METABOLISM DIABETES RESEARCH FELLOWSHIPS. NIH postdoctoral fel-lowships for research training in endocrinology, me-tabolism, and diabetes with an option for one or more years of clinical training for qualified appli-cants are available at the Mayo Clinic-Mayo Gradu-ate School of Medicine. For further information write to: Colum A. Gorman, M.D., or John E. Ger-ich, M.D., Mayo Clinic, Rochester, Minnesota 55901. Mayo, Exundation is an Exual Opportunity/Affir-Mayo Foundation is an Equal Opportunity/Affir-mative Action Institution.

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Dr. John F. Anderson Chairman, Postdoctoral Search Committee Department of Zoology University of Florida Gainesville, Fla. 32611

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Martin Scott, Scientific Photography, Kodak, Rochester, N.Y. 14650, who did these photomicrographs on Kodak instant color film PR10, would rather have you judge their quality from an original he wants to make for you at the microscope. Drop him a note if interested.